

INTERNATIONAL SEARCH REPORT

ional Application No

GB2004/002763

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 E21B43/10 E21B29/10 E21B41/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 E21B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/185274 A1 (SIMPSON NEIL A A ET AL) 12 December 2002 (2002-12-12)	1-6, 8-13,17, 18, 21-23, 26,30
Y	paragraphs '0006!, '0007!, '0009! - '0012!, '0025! - '0028!, '0030! - '0034!; claim 7 figures 1-9	14-16, 19,20, 24,25
A	US 4 624 306 A (PALMER C DALE ET AL) 25 November 1986 (1986-11-25) abstract ----- -/-	7



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the international search

16 November 2004

Date of mailing of the international search report

23.11.2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

van Berlo, A

INTERNATIONAL SEARCH REPORT

onal Application No

GB2004/002763

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/050360 A1 (STEWART R BRUCE ET AL) 2 May 2002 (2002-05-02)	28,29
Y	figures 3,6,9c,10c-10f	19,20,25
A	US 2002/092648 A1 (HACKWORTH MATTHEW R ET AL) 18 July 2002 (2002-07-18) abstract	23
X	WO 01/04535 A (STEWART R BRUCE ; COOK ROBERT LANCE (US); ENVENTURE GLOBAL TECHNOLOGY) 18 January 2001 (2001-01-18)	28
A	figures 10d-10g	19,20,25
Y	WO 01/33037 A (STEWART R BRUCE ; COOK ROBERT LANCE (US); COWAN KENNETH MICHAEL (US);) 10 May 2001 (2001-05-10) figures 3,4	19,20,25
X	WO 00/77431 A (FRIEDMAN MARK M ; STEWART R BRUCE (NL); SHELL INT RESEARCH (NL); BRISC) 21 December 2000 (2000-12-21) figures 9c,10,11,14,27-30	28
P,A	US 2003/188868 A1 (TRAHAN KEVIN O ET AL) 9 October 2003 (2003-10-09) figures 16,17	28
X	WO 99/13195 A (NOBILEAU PHILIPPE) 18 March 1999 (1999-03-18) page 4, lines 33-38; figures 1-19	27
Y	page 7, lines 28-35; figure 20	14-16,24
X	WO 01/18353 A (E2 TECH LTD ; INNES GARETH (GB); OOSTERLING PETER (NL)) 15 March 2001 (2001-03-15) page 16, lines 7-20; figures 1-3 page 17, line 23 - page 18, line 2 page 18, line 30 - page 19, line 3 page 21, line 28 - page 22, line 1	27
A		14-16,24
X	US 6 142 230 A (WRIGHT RALPH DAVID ET AL) 7 November 2000 (2000-11-07) column 1, lines 17-25; figures 4,5,7,10 column 17, line 66 - column 18, line 34 column 22, line 13 - column 23, line 18	27
X	WO 02/35058 A (METCALFE PAUL DAVID ; HARRALL SIMON JOHN (GB); TILTON FREDERICK T (US)) 2 May 2002 (2002-05-02) page 6, column 24 - page 11, column 18; figures 1-5	27
A		14-16,24

-/--

INTERNATIONAL SEARCH REPORT

ional Application No

GB2004/002763

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/144822 A1 (HACKWORTH MATTHEW R ET AL) 10 October 2002 (2002-10-10)	27
A	paragraphs '0043!, '0058!, '0059!, '0062!; figures 4,11-13	14-16,24
A	US 3 203 451 A (VINCENT RENIC P) 31 August 1965 (1965-08-31) cited in the application column 10. lines 15-20; figures 1,2,7	14-16,27
P,A	GB 2 388 353 A (SCHLUMBERGER HOLDINGS) 26 November 2003 (2003-11-26) the whole document	27

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/002763

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13,17,18,21-23,26,30

Expanding a tubular patch

2. claims: 14-16,24,27

Deformed patch

3. claims: 19,20,25,28,29

Patch with section of increased wall thickness

INTERNATIONAL SEARCH REPORT

onal Application No

GB2004/002763

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002185274 A1	12-12-2002	US 2001045284 A1	29-11-2001
		US 6325148 B1	04-12-2001
		US 2001040054 A1	15-11-2001
		US 2004173355 A1	09-09-2004
		US 2002079100 A1	27-06-2002
		AU 772790 B2	06-05-2004
		AU 1044201 A	03-07-2001
		CA 2393744 A1	28-06-2001
		EP 1242714 A1	25-09-2002
		WO 0146551 A1	28-06-2001
		NO 20022786 A	14-08-2002
		US 2003106698 A1	12-06-2003
		US 2003188868 A1	09-10-2003
		US 6598678 B1	29-07-2003
		US 2002166664 A1	14-11-2002
		US 2003019638 A1	30-01-2003
		US 2003062171 A1	03-04-2003
		AU 5493101 A	20-11-2001
		CA 2406663 A1	15-11-2001
		EP 1278932 A1	29-01-2003
		WO 0186111 A1	15-11-2001
		NO 20024946 A	23-12-2002
		US 2004159466 A1	19-08-2004
US 4624306 A	25-11-1986	US 4509593 A	09-04-1985
US 2002050360 A1	02-05-2002	US 6640903 B1	04-11-2003
		US 6497289 B1	24-12-2002
		US 2003192705 A1	16-10-2003
		US 2002060068 A1	23-05-2002
		US 2002060078 A1	23-05-2002
		US 2002040787 A1	11-04-2002
		US 2002060069 A1	23-05-2002
		US 2003098154 A1	29-05-2003
		US 2003094278 A1	22-05-2003
		US 2003094279 A1	22-05-2003
		US 2003121558 A1	03-07-2003
		US 2003173090 A1	18-09-2003
		US 6604763 B1	12-08-2003
		US 6557640 B1	06-05-2003
		US 2004188099 A1	30-09-2004
		US 2004182569 A1	23-09-2004
		US 2004123988 A1	01-07-2004
		US 2002189816 A1	19-12-2002
		US 2003056949 A1	27-03-2003
		US 2004045616 A1	11-03-2004
		US 2004118574 A1	24-06-2004
		US 6575240 B1	10-06-2003
		US 2001047870 A1	06-12-2001
		US 2001047866 A1	06-12-2001
		US 2001045289 A1	29-11-2001
		CA 2300363 A1	11-09-2000
		GB 2348223 A , B	27-09-2000
		GB 2385619 A , B	27-08-2003
		GB 2385620 A , B	27-08-2003
		GB 2385621 A , B	27-08-2003
		GB 2385622 A , B	27-08-2003
		GB 2385623 A , B	27-08-2003

INTERNATIONAL SEARCH REPORT

ional Application No

GB2004/002763

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002050360 A1		NO 20001281 A	12-09-2000
		AU 770008 B2	12-02-2004
		AU 1641700 A	31-08-2000
		BR 0000923 A	26-09-2000
		CA 2299076 A1	25-08-2000
		DE 10007547 A1	28-09-2000
		GB 2348657 A ,B	11-10-2000
		GB 2384800 A ,B	06-08-2003
		GB 2384801 A ,B	06-08-2003
		GB 2384802 A ,B	06-08-2003
		GB 2384803 A ,B	06-08-2003
		GB 2384804 A ,B	06-08-2003
		GB 2384805 A ,B	06-08-2003
		GB 2384806 A ,B	06-08-2003
		GB 2384807 A ,B	06-08-2003
		GB 2384808 A ,B	06-08-2003
		NO 20000924 A	28-08-2000
		AU 771884 B2	08-04-2004
US 2002092648 A1	18-07-2002	GB 2371063 A ,B	17-07-2002
		NO 20020223 A	17-07-2002
		US 2002092649 A1	18-07-2002
		US 2002125008 A1	12-09-2002
		US 2002125009 A1	12-09-2002
		US 2003221829 A1	04-12-2003
		US 2004163819 A1	26-08-2004
		US 2004173350 A1	09-09-2004
		BR 0200866 A	24-09-2002
		CA 2367859 A1	16-07-2002
WO 0104535 A	18-01-2001	AU 776580 B2	16-09-2004
		AU 5921400 A	30-01-2001
		CA 2383231 A1	18-01-2001
		GB 2368865 A ,B	15-05-2002
		GB 2392932 A ,B	17-03-2004
		GB 2392686 A ,B	10-03-2004
		GB 2392691 A ,B	10-03-2004
		NO 20020070 A	08-03-2002
		WO 0104535 A1	18-01-2001
		US 2002060068 A1	23-05-2002
WO 0133037 A	10-05-2001	AU 1356601 A	14-05-2001
		CA 2389094 A1	10-05-2001
		GB 2374622 A ,B	23-10-2002
		GB 2390387 A ,B	07-01-2004
		GB 2390628 A ,B	14-01-2004
		NO 20022048 A	28-06-2002
		WO 0133037 A1	10-05-2001
WO 0077431 A	21-12-2000	AU 4141300 A	02-01-2001
		CA 2306656 A1	26-10-2000
		GB 2361724 A	31-10-2001
		GB 2355738 A ,B	02-05-2001
		GB 2388391 A ,B	12-11-2003
		GB 2388392 A ,B	12-11-2003
		GB 2388393 A ,B	12-11-2003
		GB 2388394 A ,B	12-11-2003
		GB 2388395 A ,B	12-11-2003

INTERNATIONAL SEARCH REPORT

tional Application No

'GB2004/002763

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0077431 A		WO 0077431 A2	21-12-2000
		US 2003098154 A1	29-05-2003
		US 2003098162 A1	29-05-2003
		US 2003094278 A1	22-05-2003
		US 2003024708 A1	06-02-2003
		US 2003094277 A1	22-05-2003
		US 2003094279 A1	22-05-2003
		US 2003121558 A1	03-07-2003
		US 2003173090 A1	18-09-2003
		US 2003222455 A1	04-12-2003
		US 6604763 B1	12-08-2003
		US 6557640 B1	06-05-2003
		US 2002060068 A1	23-05-2002
US 2003188868 A1	09-10-2003	US 6598678 B1	29-07-2003
		US 6325148 B1	04-12-2001
		AU 1413702 A	21-05-2002
		CA 2428479 A1	16-05-2002
		EP 1333963 A2	13-08-2003
		WO 0238343 A2	16-05-2002
		NO 20032103 A	14-07-2003
		US 2003106698 A1	12-06-2003
		AU 772790 B2	06-05-2004
		AU 1044201 A	03-07-2001
		CA 2393744 A1	28-06-2001
		EP 1242714 A1	25-09-2002
		WO 0146551 A1	28-06-2001
		NO 20022786 A	14-08-2002
		US 2002185274 A1	12-12-2002
		US 2004173355 A1	09-09-2004
		US 2001045284 A1	29-11-2001
WO 9913195 A	18-03-1999	US 5979560 A	09-11-1999
		AU 733469 B2	17-05-2001
		AU 8880598 A	29-03-1999
		CA 2304687 A1	18-03-1999
		EP 1012441 A1	28-06-2000
		WO 9913195 A1	18-03-1999
		NO 20001148 A	07-03-2000
		US 6253852 B1	03-07-2001
		US 2004168809 A1	02-09-2004
WO 0118353 A	15-03-2001	AU 775105 B2	15-07-2004
		AU 7020700 A	10-04-2001
		CA 2383150 A1	15-03-2001
		EA 3386 B1	24-04-2003
		EP 1210501 A1	05-06-2002
		WO 0118353 A1	15-03-2001
		JP 2003508660 T	04-03-2003
		NO 20021080 A	19-03-2002
		NZ 517490 A	27-02-2004
		US 6745846 B1	08-06-2004
US 6142230 A	07-11-2000	US 5957195 A	28-09-1999
		US 5785120 A	28-07-1998
		AU 1054400 A	22-05-2000
		CA 2347895 A1	11-05-2000
		EP 1127210 A1	29-08-2001

INTERNATIONAL SEARCH REPORT

ional Application No

GB2004/002763

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6142230	A		WO 0026502 A1	11-05-2000
			NO 20011854 A	12-06-2001
			AU 732007 B2	12-04-2001
			AU 4955097 A	03-06-1998
			CA 2270986 A1	22-05-1998
			EP 0948703 A2	13-10-1999
			WO 9821444 A2	22-05-1998
			NO 991666 A	23-06-1999
			NO 20021323 A	23-06-1999
WO 0235058	A	02-05-2002	AU 1072102 A	06-05-2002
			CA 2417487 A1	02-05-2002
			EP 1328705 A1	23-07-2003
			WO 0235058 A1	02-05-2002
			US 2002108756 A1	15-08-2002
			US 2004159446 A1	19-08-2004
			US 2004173360 A1	09-09-2004
US 2002144822	A1	10-10-2002	GB 2371574 A ,B	31-07-2002
			GB 2388858 A ,B	26-11-2003
			GB 2388859 A ,B	26-11-2003
			NO 20020351 A	25-07-2002
			US 2004084176 A1	06-05-2004
			US 2004089454 A1	13-05-2004
			BR 0200733 A	12-11-2002
			CA 2367650 A1	24-07-2002
US 3203451	A	31-08-1965	US 3179168 A	20-04-1965
			US 3203483 A	31-08-1965
GB 2388858	A	26-11-2003	US 2002144822 A1	10-10-2002
			GB 2388859 A ,B	26-11-2003
			BR 0200733 A	12-11-2002
			CA 2367650 A1	24-07-2002
			GB 2371574 A ,B	31-07-2002
			NO 20020351 A	25-07-2002
			US 2004084176 A1	06-05-2004
			US 2004089454 A1	13-05-2004